

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Keener et al.

Serial No.: 10/618,560

Filed: July 10, 2003

For: SELECTIVE DESTRUCTION OF
CELLS INFECTED WITH THE HUMAN
IMMUNODEFICIENCY VIRUS

Confirmation No.: 8242

Examiner: J. Stucker

Group Art Unit: 1648

Attorney Docket No.: LIT-PI-529D1

CERTIFICATE OF MAILING

I hereby certify that this correspondence along with any attachments referred to or identified as being attached or enclosed is being deposited with the United States Postal Service as First Class Mail on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

10/10/05

Date

Name (Type/Print)

RE-SUBMITTED INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, it is respectfully requested that this Re-Submitted Information Disclosure Statement be entered and the documents listed on attached Form PTO/SB/08 be considered by the Examiner and made of record. Pursuant to M.P.E.P. 609 III A(2), copies of U.S. patents are not being provided. Copies of foreign patent documents and non-patent literature were enclosed with the previously mailed Supplemental Information Disclosure Statement filed August 1, 2005.

In accordance with 37 C.F.R. § 1.97(g) and (h), filing of this Re-Submitted Information Disclosure Statement is not to be construed as a representation that a search has been made or an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b). Further, no representation is made by Applicants herein that no other possible material information as defined in 37 C.F.R. § 1.56 (b) exists.

Applicants offer to supply any explanation or discussion of the documents which the Examiner feels is necessary or desirable and which is requested.

This Re-Submitted Information Disclosure Statement is filed after the mailing date of the first Office Action on the merits. No fee is associated with the re-submission of this Information Disclosure Statement pursuant to 37 C.F.R. § 1.17(p).

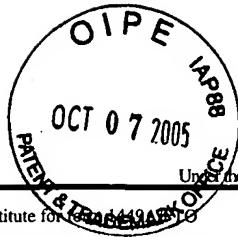
Respectfully submitted,



Stephen R. Christian
Registration No. 32,687
Attorney for Applicants
P.O. Box 1625
Idaho Falls, ID 83415 – 3899
Phone: 208-526-9140
Fax: 208-526-8339

Date: 7 Oct 2005

Enclosures: Form PTO/SB/08
Copy of non-U.S. Patent documents cited

Substitute for ~~Information Disclosure Statement~~

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1

of

6

Complete if Known

Application Number	10/618,560
Filing Date	July 10, 2003
First Named Inventor	Keener et al.
Group Art Unit	1648
Examiner Name	J. Stucker

Attorney Docket Number

LIT-PI-529D1

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
		WO 97/01636 A2	01/16/1997	Lentzen et al.		X
		JP 19850102188	11/17/1986	Takashi		X

Examiner Signature	Date Considered
--------------------	-----------------

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

2

of

6

Complete if Known

Application Number	10/618,560
Filing Date	July 10, 2003
First Named Inventor	Keener et al.
Group Art Unit	1648
Examiner Name	J. Stucker
Attorney Docket Number	LIT-PI-529D1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		BEAUMELLE, B., et al., Ricin A Chain Can Transport Unfolded Dihydrofolate Reductase into the Cytosol, 272 J. Biol. Chem. 22097-22102 (1997)	
		BRYANT, M., et al., Myristoylation-dependent Replication and Assembly of Human Immunodeficiency Virus 1, 87 Proc. Nat'l Acad. Sci. USA 523-527 (1990)	
		CHAMBERS, T.J., et al., Evidence that the N-terminal Domain of Nonstructural Protein NS3 from Yellow Fever Virus is a Serine Protease Responsible for Site-specific Cleavages in the Viral Polyprotein, 87 Proc. Nat'l Acad. Sci. USA 8898-8902 (1990)	
		CHOU, K.C., Prediction of Human Immunodeficiency Virus Protease Cleavage Sites in Proteins, 233 Anal. Biochem. 1-14 (1996)	
		FRANZ, DAVID R. AND NANCY K. JAAX, MEDICAL ASPECTS OF CHEMICAL AND BIOLOGICAL WARFARE (Chpt. 32, Ricin Toxin) 631-642.	
		GenBank accession numbers X76644, X76720, X76721, X76722, X54873, X54872, X55667, A58957	
		HOUGHTEN, 82 Proc. Nat'l Acad. Sci. USA 5131-35 (1985) (solid phase peptide synthesis)	
		KATZ, R.A., et.al., The Retroviral Enzymes, 63 Annu. Rev. Biochem. 133-173 (1994)	
		KELLERMAN & FERENCI, 90 Methods in Enzymology 459-463 (1982)	
		KITAOKA, Y., Involvement of the Amino Acids Outside the Active-site Cleft in the Catalysis of Ricin A Chain, 257 Eur. J. Biochem. 255-262 (1998)	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

3 of 6

Complete if Known

Application Number	10/618,560
Filing Date	July 10, 2003
First Named Inventor	Keener et al.
Group Art Unit	1648
Examiner Name	J. Stucker

Attorney Docket Number LIT-PI-529D1

NON PATENT LITERATURE DOCUMENTS		
Examiner Initials *	Cite No. ¹	
		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		KORANT, B.D., Viral Proteases: An Emerging Therapeutic Target, 8 Crit. Rev. Biotechnol. 149-157 (1988)
		KORNFELD, H., et al., Lymphocyte Activation by HIV-1 Envelope Glycoprotein, 335 Nature 6189 (1988)
		KWONG, P.D., et al., Structure of an HIV gp120 Envelope Glycoprotein in Complex with the CD4 Receptor and a Neutralizing Human Antibody, 393 Nature 648-659 (1998)
		KYTE, J., et al., A Simple Method for Displaying the Hydropathic Character of a Protein, 157 J. Mol. Biol. 105-132 (1982)
		LAMB, F.I., et al., Nucleotide Sequence of Cloned cDNA Coding for Preproricin, 148 Eur. J. Biochem. 265-270 (1985)
		LAMBERT, J.M., et al., An Immunotoxin Prepared with Blocked Ricin: a Natural Plant Toxin Adapted for Therapeutic Use, 51 Cancer Res. 6236-6242 (1991)
		LORD, J.M., et al., Ricin: Structure, Mode of Action, and Some Current Applications, 8 FASEB J. 201-208 (1994)
		MATHE, G., The Kinetics of Cancer Cells and of HIV1: The Problems of Cell and Virus Rebounds and of Latency, 52 Biomed. Pharmacother. 413-420 (1998)
		MIYOSHI, H., et al., Development of a Self-inactivating Lentivirus Vector, 72 J. Virol. 8150-8157 (1998)
		NARANG, S.A., et al., 68 Meth. Enzymol. 90 (1979) (phosphotriester method)
		PALLANCA, A., et al., Uncompetitive Inhibition by Adenine of the RNA-N-glycosidase Activity of Ribosome-inactivating Proteins, 1384 Biochim. Biophys. Acta 277-284 (1998)

Examiner Signature		Date Considered
--------------------	--	-----------------

¹EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

4

of

6

Complete if Known

Application Number	10/618,560
Filing Date	July 10, 2003
First Named Inventor	Keener et al.
Group Art Unit	1648
Examiner Name	J. Stucker
Attorney Docket Number	LIT-PI-529D1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		PASTAN, I., et al., Recombinant Toxins for Cancer Treatment, 254 Science 1173-1177 (1991)	
		PATICK, A.K., et al., Protease Inhibitors as Antiviral Agents, 11 Clin. Microbiol. Rev. 614-627 (1998)	
		PERT, C.B., et al., Octapeptides Deduced from the Neuropeptide Receptor-like Pattern of Antigen T4 in Brain Potently Inhibit Human Immunodeficiency Virus Receptor Binding and T-cell Infectivity, 83 Proc. Nat'l Acad. Sci. USA 9254-9258 (1986)	
		PINCUS, S.H., et al., Anti-Human Immunodeficiency Virus Immunoconjugates, 32 Adv. Pharmacol. 205-247 (1995)	
		PINCUS, S.H., Therapeutic Potential of Anti-HIV Immunotoxins, 33 Antiviral Res. 1-9 (1996)	
		PUGACHEV, K. V., et al., Site-directed Mutagenesis of the Tick-borne Encephalitis Virus NS3 Gene Reveals the Putative Serine Protease Domain of the NS3 Protein, 328 FEBS Lett. 115-118 (1993)	
		RICHARDSON, P.T., et al., The Expression of Functional Ricin B-chain in <i>Saccharomyces cerevisiae</i> , 950 Biochim. Biophys. Acta 385-394 (1988)	
		ROBERTS, L. M., et al., Molecular Cloning of Ricin, 7 Targeted Diagn Ther 81-97 (1992)	
		ROBERTUS, J.D., et al., Structural Analysis of Ricin and Implications for Inhibitor Design, 34 Toxicon 1325-1334 (1996)	
		RUTENBER, E., et al., Structure of Ricin B-chain at 2.5 Å Resolution, 10 Proteins 260-269 (1991)	
		SELA, B.A., et al., Lymphocyte Activation by Monovalent Fragments of Antibodies Reactive with Cell Surface Carbohydrates, 143 J. Exp. Med. 665-671 (1976)	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

5

of

6

Complete if Known

Application Number	10/618,560
Filing Date	July 10, 2003
First Named Inventor	Keener et al.
Group Art Unit	1648
Examiner Name	J. Stucker
Attorney Docket Number	LIT-PI-529D1

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		SIMMONS, B.M., et al., Mannose Receptor-mediated Uptake of Ricin Toxin and Ricin A Chain by Macrophages, 261 J. Biol. Chem. 7912-7920 (1986)	
		SINHA, N.D., et al., 12 Nucl. Acids Res. 4539 (1984)	
		SINHA, N.D., et al., 15 Nucl. Acids Res. 397 (1987)	
		SINHA, N.D., et al., 16 Nucl. Acids Res. 319 (1988)	
		SINHA, N.D., et al., 24 Tetrahedron Lett. 5843 (1983)	
		Tözsér, J. et al., Studies on the Symmetry and Sequence Context Dependence of the HIV-1 Proteinase Specificity, 272 J. Biol. Chem. 16807-16814 (1997)	
		TREGEAR, J.W., et al., The Lectin Gene Family of Ricinus communis: Cloning of a Functional Ricin Gene and Three Lectin Pseudogenes, 18 Plant Mol. Biol. 515-525 (1992)	
		VAN OIJEN, M.G.C.T., et al., Rationale for Use of Immunotoxins in the Treatment of HIV-infected Humans, 5 J. Drug Target 75-91 (1997)	
		VON DER HELM, K., Retroviral Proteases: Structure, Function and Inhibition from a Non-anticipated Viral Enzyme to the Target of a Most Promising HIV Therapy, 377 Biol. Chem. 765-774 (1996)	
		WANG, C.T., et al., Sequence Requirements for Incorporation of Human Immunodeficiency Virus Gag- ² -galactosidase Fusion Proteins into Virus-like Particles, 59 J. Med. Virol. 180-188 (1999)	
		WESTBY, M., et al., Preparation and Characterization of Recombinant Prorin Containing an Alternative Protease-sensitive Linker Sequence, 3 Bioconjug. Chem. 375-381 (1992)	

Examiner Signature	Date Considered
--------------------	-----------------

¹EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

² Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO		<i>Complete if Known</i>			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Application Number	10/618,560		
		Filing Date	July 10, 2003		
		First Named Inventor	Keener et al.		
		Group Art Unit	1648		
		Examiner Name	J. Stucker		
Sheet	6	of	6	Attorney Docket Number	LIT-PI-529D1

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
		WOOD, K.A., et al., Preproabrin: Genomic Cloning, Characterisation and the Expression of the A-chain in Escherichia coli, 198 Eur. J. Biochem. 723-732 (1991)		²
		WU, J.C., et al., Synthetic HIV-2 Protease Cleaves the GAG Precursor of HIV-1 with the Same Specificity as HIV-1 Protease, 277 Arch. Biochem. Biophys. 306-311 (1990)		
		WYATT, R., et al., The Antigenic Structure of the HIV gp120 Envelope Glycoprotein, 393 Nature 705-711 (1998)		
		WYATT, R., et al., The HIV-1 Envelope Glycoproteins: Fusogens, Antigens, and Immunogens, 280 Science 1884-1888 (1998)		
		ZHANG, A., et al., A Disulfide-bound HIV-1 V3 Loop Sequence on the Surface of Human Rhinovirus 14 Induces Neutralizing Responses Against HIV-1, 380 Biol. Chem. 365-374 (1999)		
		ZUFFEREY, R., et al., Self-inactivating Lentivirus Vector for Safe and Efficient In Vivo Gene Delivery, 72 J. Virol. 9873-9880 (1998)		

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.